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No. V.

LADDER CRANE.

The SILVER MEDAL was presented to Mr. W. H. HILTON, 10, Regent Street, for his Ladder Crane; a Model of which has been placed in the Society's Repository.

> 10, Regent Street, Pall Mall, 10th January, 1828.

SIR,

I BEG, through your medium, to introduce to the Society of Arts a model of a Ladder Crane, the peculiar advantage of which is, that it can be used where it is impossible to erect those used in common: it is also cheap and safe. Four years ago I attached one to an old step-ladder, and have found it to answer every purpose for which it was intended.

I am, Sir, &c. &c.

A. AIKIN, Esq.
Secretary, &c. &c.

W. H. HILTON.

Mr. Hilton has a warehouse, to the cellar of which there is no access except by means of a step ladder; and the difficulties which were experienced in storing casks of wine in it, induced him to invent the ladder crane described below. It has been in constant use ever since, is cheap, not liable to be put out of order, and, by means of it, one man can lower a hogshead of wine into the cellar, and two men can raise it out again.

Reference to the Engraving of Mr. HILTON's Ladder Crane for raising or lowering Goods from one Floor to another, or from a Cellar to the Street. Plate VI.

Fig. 4 represents the crane as fitted to a cellar; g g, part of the cellar floor; h, the upper part opening to the street; ii, the ladder, having projecting ridges or ways, jj, on each side for the platform k k, on which the goods l are placed to traverse, by means of two rollers m munder it, which bear against the front jj of the ladder, and two rollers n n which bear against the back or under-side of the ridges jj, and hold it like a hook, as they turn on stude fixed to the side bars of the board k. These rollers are so adjusted to the slope of the ladder as to keep the board k level, while the weight keeps the rollers always in contact with the ways jj. Fig. 5 is a horizontal section of the ladder, shewing how the ridges i are placed between the rollers. The board k hangs on two ropes p p, which are made fast to its under side, and pass over two wide pulleys oo at top of the ladder, (shewn in section, fig. 6, and in a front view in the additional portion of ladder, fig. 7,) and then descend to the barrel q placed across the ladder back; the barrel is moved by its wheel r and the pinion s on the off side of the ladder, the axis of which crosses the ladder, and is turned by the winch-handle t on the near side. barrel has a ratchet-wheel and click v. A break may be applied to the wheel r, or to one on the pinion axis. goods are brought on a truck, the platform may be lowered to the dotted lines k, but if received from the floor, the ladder may be sunk in a hollow uu, large enough to receive the platform k level with it. When it is desired to raise goods to a cart, or receive any therefrom, the additional portion, fig. 7, may be placed on the top of the ladder; its bars w w fit in the iron straps x x, as shewn by dotted lines, fig. 4; but previously a sufficient portion of rope to reach over this addition is to be let off from the barrel q, it being taken from the lower pulleys o o to pass over the upper ones for this purpose. The pulley-frames are left open at top; but where this addition is not used, they may be covered by the step y joining the sides of the ladder.

No. VI.

STAMPS FOR BOOKBINDERS.

The SILVER ISIS MEDAL and FIVE POUNDS were given to Mr. ALEXANDER BAIN, 7, Broad Court, Long Acre, for his Movable Stamps for Bookbinders, a Set of which has been placed in the Society's Repository.

THE covers of books expensively bound have embossed, or rather indented, ornamental patterns in the middle and corners. These patterns are cut in brass, and being applied to the surface of the cover, are in that situation subjected to the action of a strong press. The corner pattern is triangular, and the middle one is formed by the combination of four impressions similar to the corner one. A single pattern-block is used for this purpose; and therefore, in a book ornamented as above stated, requires to be applied eight different times for each side,